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25 JUN 1959

MEMORANDUM FOR: Assistant Director/Research and Reports
FROM: Assistant Director/Scientific Intelligence
SUBJECT: Request for Geographic Study of the USSR
of Areas Most Susceptible and Least
Susceptible to Attempted Concealed
Underground Nuclear Tests

1. This memo confirms a conversation between [redacted] of your office and [redacted] of this office 22 June 1959.

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2. As part of this Agency's support to current negotiations for a controlled nuclear test moratorium, we are required to advise the Inter-Agency Working Group on Disarmament, as well as interested Advisory Panels of the President's Science Advisory Committee, on the support U. S. intelligence can provide in the detection and identification of concealed underground nuclear tests.

3. Currently an effort is being made to determine our policy position on the Soviet proposal that a quota of on-site inspections be allowed each side annually to investigate unidentified seismic events suspicious of being concealed, underground nuclear explosions.

4. One obvious contribution that U. S. intelligence can make to this determination, as well as to the subsequent administration of any such quota system, is an evaluation of the areas in the USSR which may tend to preclude or to facilitate attempted concealed underground nuclear tests. Such an evaluation, for example, would define and plot the following factors:

- a. Population density
- b. Salt domes or thick-bedded salt formations
- c. Climate (to include permafrost areas and ground water problems)
- d. Vast marsh areas and other areas where nuclear test logistics may be impracticable
- e. Mining areas and deep, abandoned tunnels
- f. Deep lakes
- g. Officially closed areas
- h. Seismic and aseismic areas.

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5. We anticipate further study of this problem may reveal additional factors.

6. It is requested that a preliminary geographic presentation of such factors be prepared for use 1 July 1959, and that a more detailed study of this problem be undertaken in collaboration with this office on a long term basis. [REDACTED] this office (ext. 2717) is available to assist your Geographic Division in this matter. 25X1A9a

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